



KNX and BACnet – Two Complementary Open Standards

Standardized Mapping KNX to BACnet

BACnet and the KNX Association have agreed upon a standardized mapping for the two open standards. The Mapping facilitates the preferred implementation of both communication standards in buildings: BACnet for the building automation and KNX for the building management systems. The mapping is documented in annex H.5 of the BACnet standard.

The KNX-protocol has been standardised as the Home and Building Electronic Systems (EN 50090) and is therefore the basis for efficient building management. The KNX standard fulfils the most important preconditions: unified commissioning tool and transparent communication between local actuators and sensors. The main advantages of the KNX protocol are threefold: full Interoperability, product quality and highest functionality for standardised and complex applications.

BACnet as global standard for building automation has proven its strengths for the automation of primary supply systems. The same goes for the integration of systems of different application domains as regards their functional interaction and comfortable, common visualisation. BACnet can also ensure data management as a means to optimise energy, resources and operational costs of a building.

The combination of KNX with BACnet standard is not entirely new.

To name but a few reference projects in which this combination was already successfully used: the „Neues Kranzler Eck“ in Berlin, the Stihl AG factories in Waiblingen (Germany) and the Saint Olav’s University hospitals in Trondheim, Norway.

The standardized mapping between BACnet and KNX significantly facilitates the development of products to ensure a seamless infrastructure, from room automation up to the overall building management system. The basis for the relationship between KNX and BACnet lies in the comparability of KNX functional blocks and BACnet object types, while KNX data points correlate one-to-one to BACnet properties. The KNX functional blocks and the BACnet object types have identical semantics as regards data structure: in this way, properties can be easily exchanged.

The mapping principles are documented in annex H.5 of the ANSI/ASHRAE standard 135 entitled „Using BACnet with KNX“. This document is identical to the world standard DIN EN ISO 16484-5.

Due to the standardized mapping it is possible to develop standardized low-cost interfaces able to connect building systems engineering and building automation and their individual strengths. This constitutes an irresistible offer for the realisation of an overall building management system. This is the best prerequisite to continue to – also in the future –

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■ KNX Association presents KNX - World’s only STANDARD for Home & Building Control according to EN500900

■ KNX Association präsentiert KNX – den weltweit einzigen offenen STANDARD für Haus- und Gebäudesystemtechnik gemäss EN50090.

■ L’association KNX présente: KNX - le seul standard pour la domotique et l’automatisme du bâtiment selon la norme EN500900

KNX in motion

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build a “strong team” that continues to support investors, designers, contractors and building operators and users.

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